Synology 406 Series Server

User's Guide

Syno406Series_UG_20060814_enu

(Based on DS2.0 Ver. 2.0363)

Synology

COPYRIGHT NOTICE

All title, copyright and other intellectual property rights in and to any Synology Products, the “Products” or “Product” (including but not limited to product design and appearance, firmware, and any relevant media, images, photographs, animations, video, audio, music, text, and applets incorporated into the Products), the accompanying manuals and other documents, and on-line or electronic documents, if any, are owned by Synology Inc. Unless otherwise expressly licensed by Synology Inc. in writing, any provision of the Products does not represent any license of any of the above rights.

Copyright © 2004-2006 Synology Inc.; All rights reserved.

TRADEMARK NOTICE

Synology and other names of Synology Products are proprietary marks or registered trademarks of Synology Inc. Microsoft, Windows series, and Internet Explorer are trademarks of Microsoft Corporation. Apple, Mac, Mac OS series are trademarks of Apple Computer, Inc., registered in the U.S. and other countries. Other products and company names mentioned herein are trademarks of their respective holders.

LIMITED WARRANTY AND LIABILITY

Synology provides a limited warranty for its Products only to the initial person or entity that originally purchased the Products from Synology or its authorized distributor or retailer. Synology warrants that every hardware portion of the Products will be free from physical defects in material and workmanship for one year from the date of purchase, or the Product will be repaired or replaced as determined solely by Synology. If the Product proves defective during this warranty period, you can contact the local dealer in order to obtain assistance. You must provide proof of purchase and a bar code number from the Product’s packaging when asking for assistance. Synology Products are barebones devices so Synology makes no warranty of the hard disk installed, or warranty on compatibility of all hard disks.

SYNOLOGY SHALL HAVE NO LIABILITY TO YOU UNDER THIS LIMITED WARRANTY IF THE PRODUCT IS INSTALLED AND USED IN A MANNER NOT SPECIFIED OR DESCRIBED IN THE PRODUCT SPECIFICATIONS OR DESCRIPTION, THE PRODUCT HAS BEEN MODIFIED OR ALTERED IN ANY WAY BY ANY PARTY OTHER THAN SYNOLOGY, OR THE FAILURE OF THE PRODUCT TO CONFORM TO ITS SPECIFICATIONS CAN BE ATTRIBUTED TO CAUSES THAT NOT THE RESPONSIBILITY OF SYNOLOGY.

SYNOLOGY MAKES NO WARRANTY OR REPRESENTATION, EXPRESSED, IMPLIED, OR STATUTORY, WITH RESPECT TO ITS PRODUCTS OR THE CONTENTS OR USE OF THIS DOCUMENTATION AND ALL ACCOMPANYING SOFTWARE, AND PARTICULARLY DISCLAIMS ITS QUALITY OR PERFORMANCE FOR ANY PARTICULAR PURPOSE.

SYNOLOGY MAKES NO GUARANTEE THAT ALL DATA STORED ON SYNOLOGY PRODUCTS IS ALWAYS SECURE WITHOUT ANY RISKS OF DATA LOSS. SYNOLOGY REMINDS YOU TO BACK UP THE DATA PERIODICALLY. UNDER NO CIRCUMSTANCES SHALL SYNOLOGY BE LIABLE IN ANY WAY TO THE USER FOR DAMAGES, INCLUDING ANY SAVINGS, LOST PROFITS OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF, OR INABILITY TO USE SYNOLOGY PRODUCTS OR RESULTING LOSS OF DATA FROM SUCH USE.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE (OR JURISDICTION TO JURISDICTION). SYNOLOGY'S RESPONSIBILITY FOR

MALFUNCTIONS AND DEFECTS IN HARDWARE IS LIMITED TO REPAIR OR REPLACEMENT AS SET FOR IN THIS WARRANTY STATEMENT. FOR CUSTOMERS, EXCEPT FOR THE EXPRESS WARRANTIES CONTAINED IN THIS WARRANTY STATEMENT, SNOLOGY DISCLAIMS ALL OTHER WARRANTIES AND CONDITIONS, EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, FOR THE PRODUCT, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. NO OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, WILL APPLY AFTER THE LIMITED WARRANTY PERIOD HAS EXPIRED. SOME STATES OR JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF CERTAIN IMPLIED WARRANTIES OR CONDITIONS, OR LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY OR CONDITION LASTS, SO THIS LIMITATION MAY NOT APPLY TO YOU. THIS LIMITED WARRANTY COVERAGE TERMINATES IF YOU SELL OR OTHERWISE TRANSFER THIS PRODUCT TO ANOTHER PARTY.

SYNOLOGY DOES NOT ACCEPT LIABILITY BEYOND THE REMEDIES PROVIDED FOR IN THIS LIMITED WARRANTY OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, ANY LIABILITY FOR THIRD-PARTY CLAIMS AGAINST YOU FOR DAMAGES, FOR PRODUCTS NOT BEING AVAILABLE FOR USE, OR FOR LOST DATA OR LOST SOFTWARE. SYNOLOGY'S LIABILITY SHALL NOT EXCEED THE AMOUNT YOU PAID FOR THE PRODUCT THAT IS THE SUBJECT OF A CLAIM. THIS IS THE MAXIMUM AMOUNT FOR WHICH SYNOLOGY IS RESPONSIBLE.

SYNOLOGY INC. PRODUCTS ARE NOT INTENDED FOR USE IN MEDICAL, LIFE SAVING, OR LIFE SUSTAINING APPLICATIONS.

DISPUTE RESOLUTION

For the purposes of this provision, the term “Dispute” means any dispute, controversy, or claim arising out of or relating to (i) this Agreement, its interpretation, or the breach, termination, applicability or validity thereof, (ii) the related order for, purchase, delivery, receipt or use of any product or service from Synology, or iii) any other dispute arising out of or relating to the relationship between You and Synology; the term “Synology” means Synology, Inc, its parents, subsidiaries, affiliates, directors, officers, employees, beneficiaries, agents, assigns, component suppliers (both hardware and software), and/or any third party who provides products or services purchased from or distributed by Synology; and the term “You” means you, or those in privity with you, such as family members or beneficiaries. For US customers, you and Synology agree that any Dispute between You and Synology will be resolved exclusively and finally by arbitration under the current commercial rules of the American Arbitration Association, except as otherwise provided below. The arbitration will be conducted before a single arbitrator, and will be limited solely to the dispute between You and Synology. The arbitration, or any portion of it, will not be consolidated with any other arbitration and will not be conducted on a class-wide or class action basis. The arbitration shall be held in King County, Washington by submission of documents, by telephone, online or in person as determined by the arbitrator at the request of the parties. The prevailing party in any U.S. or non-U.S. arbitration or other legal action shall receive all costs and reasonable attorneys’ fees, including any arbitration fee paid by the prevailing party. Any decision rendered in such arbitration proceedings will be final and binding on the parties, and judgment may be entered thereon in any court of competent jurisdiction. You understand that, in the absence of this provision, You would have had a right to litigate Disputes through a court, including the right to litigate claims on a class-wide or class-action basis, and that You have expressly and knowingly waived those rights and agreed to resolve any disputes through binding arbitration in accordance with the provisions of this paragraph. For non-US customers, any Dispute shall be finally resolved by arbitration

conducted by three neutral arbitrators in accordance with the procedures of the R.O.C. Arbitration Law and related enforcement rules. The arbitration shall take place in Taipei, Taiwan, R.O.C., and the arbitration proceedings shall be conducted in English or, if both parties so agree, in Mandarin Chinese. The arbitration award shall be final and binding on the parties and may be enforced in any court having jurisdiction.

REVISIONS

Synology reserves all rights to revise or update its Products, other products, software, or related documentation without further notice.

Synology Inc. reserves the right to revise this publication and to make changes in the content hereof without the obligation to notify any person of such revision or changes.

Index

Safety Warnings and Instructions 6
About this User's Guide 7
Getting to know your Synology Server 8
Introduction 8
File Server 8
Backup Server 8
FTP Server 8
Entertainment Application 8
USB Printer Server 8
Specification 8
Limitations 10
Appearance 10
CS-406/CS-406e 10
RS-406 13
LED Indication Descriptions Table 14
Managing Synology Server 15
Entering Web Management UI 15
Using Setup Utility 15
Accessing Web Management UI Manually 17
Managing Synology Server 18
Managing Volume 18
Managing Volume 18
Repairing Volume by Hot Swapping 19
Joining Windows Domain 19
Assigning Access Right for Domain Users 20
Resetting Administrator Password 20
Reinstalling Synology Server 20
Accessing Synology Server Data 21
Shared Folders 21
System Built-in 21
Administrator-Created 21
Setting Access Control 22
Setting Encoding 23
Accessing Shared Folders 24
Windows User 24
Mac User 25
Through FTP 26
Server Backup and PC Backup Solutions 28
Local Backup 28
Network Backup 29
Backup Personal Data 29
Before starting 30
Minimum System Requirement 30
Installing Synology Data Replicator II 30
Using Synology Data Replicator II 31
Backing up Synology Server Settings 31
Synology Server to PC Client 31
Synology Server to another Synology Server 32
Sharing USB Printer 33
Extra Features 34
Multimedia Service 34
Download Station 34
Enabling Download Station 34
Installing Download Redirector 34
Web Station 35
Enabling Web Station and MySQL 35
Web Station's detail description 35

Photo Station 36
Enabling Photo Station 36
Photo Station's detail description 36
Mail Notification 36
Firmware Update 37
Expanding HDD Capacity 38
External USB HDD 38
Troubleshooting 39
Appendix 40
Recommended Peripherals 40
Recommended SATA HDD 40
Recommended USB Printer 40
Recommended UPS 42
Recommended NTP Server 42

Safety Warnings and Instructions

Please read this safety warnings and instructions carefully before use, and keep it well for your future reference.

1. Do not place the product in direct sunlight or near chemicals. Make sure that the environment does not experience abrupt changes in temperature or humidity.
2. Before cleaning, please unplug the power cord first. Wipe the product with wet paper towers. Do not use chemical or aerosol cleaners to clean it.
3. Do not put the product close to any liquid.
4. Do not put the product on a cart, table, or desk, which is not stable to avoid falling off.
5. Keep the product stand erect. Do not lay it down horizontally.
6. There are ventilation openings on the side covers. To make sure the product is operating under normal condition, please do not block or cover the openings to avoid overheating.
7. Take extra care to allow sufficient air circulation or spaces for the product.
8. The connections and equipment which provides electricity to the product should be capable of operating safely with the maximum power requirements. In case of a power overload, the supply circuits and supply wiring should not become hazardous.
9. Do not allow anything to rest on the power cord and do not locate the product where anyone can walk on the power cord.
10. Do not attempt to repair the product by yourself. Opening or removing the covers can expose you to dangerous high voltage or other risks. Refer all service to qualified service personnel.

About this User’s Guide

This user's guide covers all the functions of Synology 406 series server. Some of the functions may only be available on specific models.

Getting to know your Synology Server

Introduction

Congratulations on your purchase of Synology 406 series server (“Synology Server”). Synology Server is specially designed for SMB & Enterprise users with multiple functions:

File Server

Windows and Mac users can easily share files within Intranet or through Internet. Unicode language support makes sharing different language files from Synology Server without problems.

Backup Server

Synology Server provides diverse backup solutions to back up Synology Server data or backup PC data to Synology Server.

FTP Server

Synology Server provides FTP service with bandwidth restriction and anonymous login.

Entertainment Application

Personal or corporate website can be easily setup using “Web Station” function. By integrating with PHP and MySQL, user can also setup online shop.

“Photo Station” provides easy and fast method to share your photos online.

“Download Station” allows you to download files from Internet through BitTorrent, FTP, and HTTP to Synology Server. Moreover, if you have UPnP DMA connected in the LAN, you can enable “Multimedia Service” and share the multimedia files on Synology server.

USB Printer Server

You can share USB 2.0 Printer through Local Area Network.

Specification

Item	CS-406e	CS-406	RS-406
Hard Disk Interface	SATA	SATA	SATA
USB 2.0 Ports	× 2	× 2	× 2

Item	CS-406e	CS-406	RS-406
LAN Port	RJ-45 10/100/1000Mbps	RJ-45 10/100/1000Mbps	RJ-45 10/100/1000Mbps
Windows User	Windows 98 onward	Windows 98 onward	Windows 98 onward
Mac User	Mac OS 9 onward	Mac OS 9 onward	Mac OS 9 onward
Maximum User Accounts	1,024	1,024	1,024
Maximum Group Accounts	128	128	128
Maximum Shared Folder	100	100	100
Maximum Concurrent Connections	64	64	64
NTP	Yes	Yes	Yes
FTP	Yes(+SSL/TLS)	Yes (+SSL/TLS)	Yes (+SSL/TLS)
Language Localization	English, French, German, Japanese, Korean, Italian, Spanish, Traditional Chinese, Simplified Chinese	English, French, German, Japanese, Korean, Italian, Spanish, Traditional Chinese, Simplified Chinese	English, French, German, Japanese, Korean, Italian, Spanish, Traditional Chinese, Simplified Chinese
HDD Hibernation	Yes	Yes	Yes
Event Notification	Yes	Yes	Yes
Agency Certifications	FCC Class B、CE、BSMI	FCC Class B、CE、BSMI	FCC Class B、CE、VCCI Class A
Dimension	23.0cm x 16.8cm x 18.4cm	23.0cm x 16.8cm x 18.4cm	45.75 cm x 43.05 cm x 4.4 cm
Weight	2.23kg (excluding HDD)	2.23kg (excluding HDD)	7.2kg (excluding HDD)
Power Consumption And Environment Requirements	Line voltage 100V to 240V AC Frequency 50Hz to 60Hz Power Consumption Standby: 58W Working: 63W Hibernation:	Line voltage 100V to 240V AC Frequency 50Hz to 60Hz Power Consumption Standby: 58W Working: 63W Hibernation:	Line voltage 100V to 240V AC Frequency 50Hz to 60Hz Power Consumption Standby: 63W Working: 68W Hibernation:

Item	CS-406e	CS-406	RS-406
	18W Operating Temperature 50 to 95° F (10 to 35° C) Storage Temperature -40 to 185° F (-10 to 70° C) Relative Humidity 5% to 95% RH Maximum Operating Altitude 10,000 feet	18W Operating Temperature 50 to 95° F (10 to 35° C) Storage Temperature -40 to 185° F (-10 to 70° C) Relative Humidity 5% to 95% RH Maximum Operating Altitude 10,000 feet	23W Operating Temperature 50 to 95° F (10 to 35° C) Storage Temperature -40 to 185° F (-10 to 70° C) Relative Humidity 5% to 95% RH Maximum Operating Altitude 10,000 feet

Limitations

1. Supports up to 1 USB printer.
2. Supports up to 2 USB disks.
3. For Mac users, Synology Server supports only USB printers with PostScript.

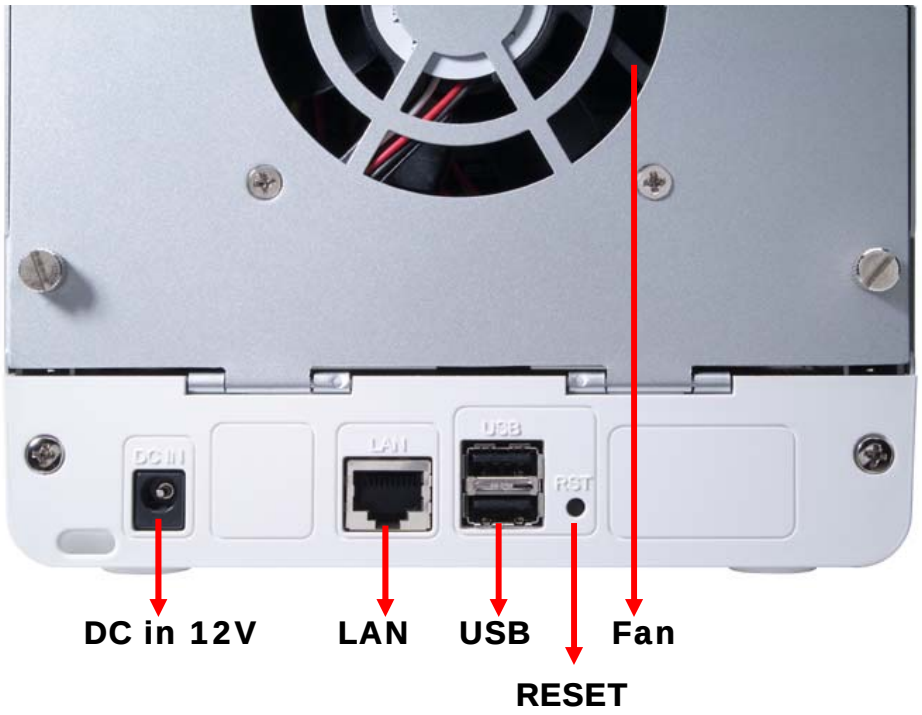
Appearance

CS-406/CS-406e

Front View

LED Indicators Power Button LED Indicators

Rear View

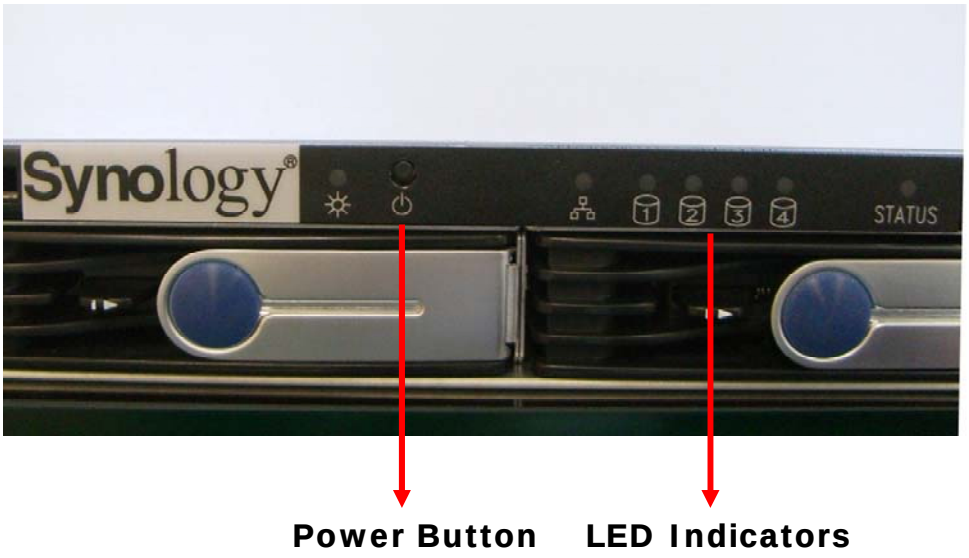


Article Name	Location	Description
Power Button	Front Panel	The Power Button is used to turn Synology Server On or Off. 1. It will take approximately 30 seconds to 1 minute to turn on Synology Server. 2. To turn Off Synology Server, press the Power Button until you hear a "beep" and the Power LED begins blinking. The shutdown process will complete in 30 seconds.
LED indicators	Front Panel	The LED indicator is used to display the status of the internal disk and the system.
USB Port	Front Panel	Synology Server offers 2 USB ports for adding additional external hard drives, USB printers, or other USB devices.
Fan Ventilation	Back Panel	The fan is to exhaust waste heat out of Synology Server. It will start automatically when the server starts. If the fan is malfunctioning, system will "beep" every 1 second.
RESET Button	Back Panel	1. To restore IP, DNS, passwords for the "admin" account to default value, and reset the “guest” account to the “enabled” status. (Please refer to “Resetting Administrator Password” chapter.) 2. To reinstall the Synology Server. (Please refer to “Reinstalling Synology Server” chapter.)

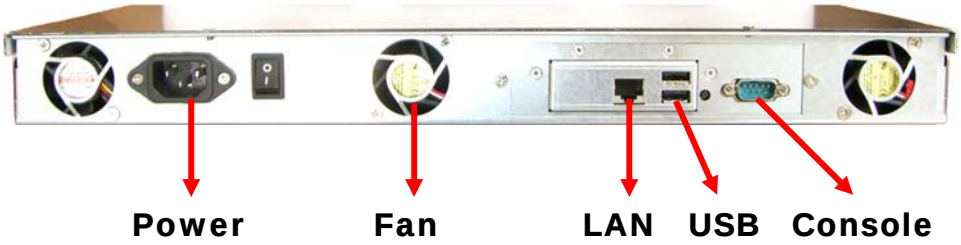
LAN Port	Back Panel	The LAN port is where you connect RJ-45 cable to Synology Server.
DC IN 12V Port	Back Panel	The DC IN 12V Port is where you connect the AC Power Adapter.

RS-406

Front View



Rear View



Article Name	Location	Description
Power Button	Front Panel	The Power Button is used to turn Synology Server On or Off. 1. It will take approximately 30 seconds to 1 minute to turn on Synology Server. 2. To turn Off Synology Server, press the Power Button until you hear a "beep" and the Power LED begins blinking. The shutdown process will complete in 30 seconds.
LED indicators	Front Panel	The LED indicator is used to display the status of the internal disk and the system.
USB Port	Back Panel	Synology Server offers 2 USB ports for adding additional external hard drives or other USB devices.
Fan	Back Panel	There are 3 fans on the back panel. The fans are used to exhaust waste heat out of Synology Server. The fans will start automatically when Synology Server starts. If the fan is malfunctioning, system will

		"beep" every 1 second.
Console port	Back Panel	The console port is where you connect Synology Server directly to a computer.
RESET Button	Back Panel	1. To restore IP, DNS, passwords for the "admin" account to default value, and reset the “guest” account to the “enabled” status. (Please refer to “Resetting Administrator Password” chapter.) 2. To reinstall the Synology Server. (Please refer to “Reinstalling Synology Server” chapter.)
LAN Port	Back Panel	The LAN port is where you connect RJ-45 cable to RS-406.
Power Port	Back Panel	The power port is where you connect the AC power cord.

LED Indication Descriptions Table

LED Indication	Color	Status	Description
Power	Blue (CS-406 Series)	Blinking	• During System boot-up • During System shutdown
		Solid Light	System Ready
		Light Off	Power Off
	Green (RS-406)	Blinking	• During System boot-up • During System shutdown
		Solid Light	System Ready
		Light Off	Power Off
Status	Green/Orange	Solid Green Light	Normal operation
		Solid Orange Light	At least one volume used capacity reaches 85% - 95%
		Blinking Orange Light	At least one volume used capacity reaches 95%
HDD	Green/Orange	Solid Green Light	Hard Disk Detected / Normal
		Blinking Green Light	During Read/Write
		Light Off	During System boot-up
		Solid Orange Light	No HDD
		Blinking Orange Light	Hard Disk Failure
LAN	Green	Solid Green Light	Normal operation
		Blinking Green Light	Server being Accessed
		Light Off	LAN cable not connected

Managing Synology Server

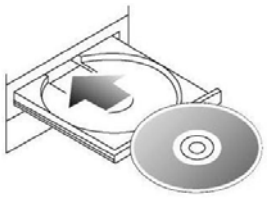
Entering Web Management UI

There are two options for you to enter the management UI:

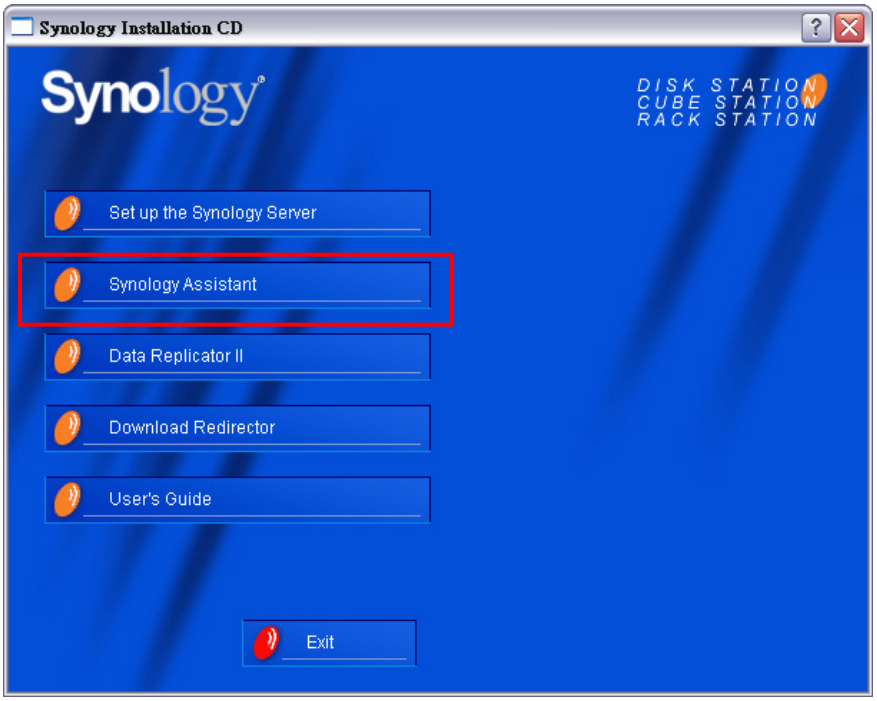
Using Setup Utility

[Windows User]

1. Insert the Installation CD into CD/DVD-Rom Drive.

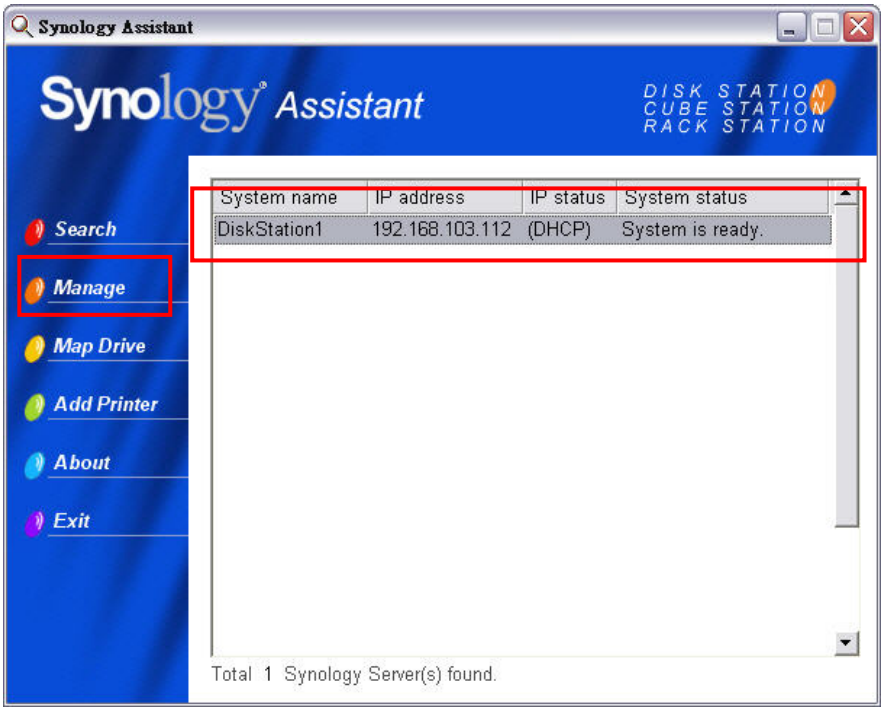


2. Choose “Synology Assistant” at the Autoup Menu.

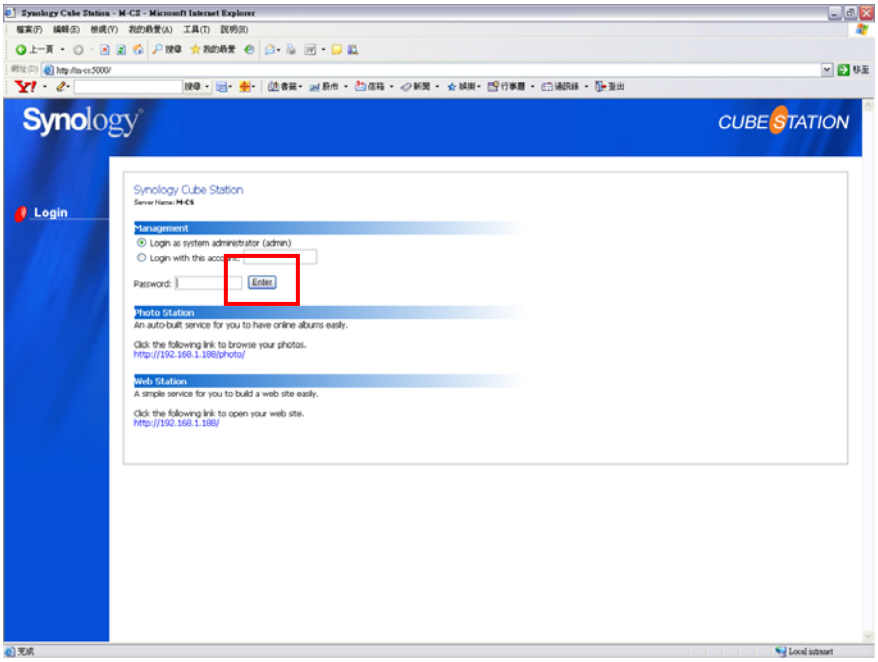


3. Follow the steps to complete installation.
4. After installation, double click on the desktop icon to execute the program.

5. Choose the server you want to manage and click “Manage” to enter the Web Management UI.



6. Choose “login as system administrator (admin)”, input password and click “Enter”.



[Mac OSX User]

1. Insert the Installation CD into CD/DVD-Rom Drive.
2. Double-Click CD-Rom Drive thumbnail.
3. Double-Click "MacOSX" thumbnail.
4. Double-Click "Synology Assistant-SYNOLOGY.dmg" thumbnail.

5. Double-Click "Synology Assistant" thumbnail to run setup wizard.

6. Choose a Synology Server and click "Manage" to enter the Web Management UI.

7. Choose "login as system administrator (admin)", input password and click "Enter".

Please note:

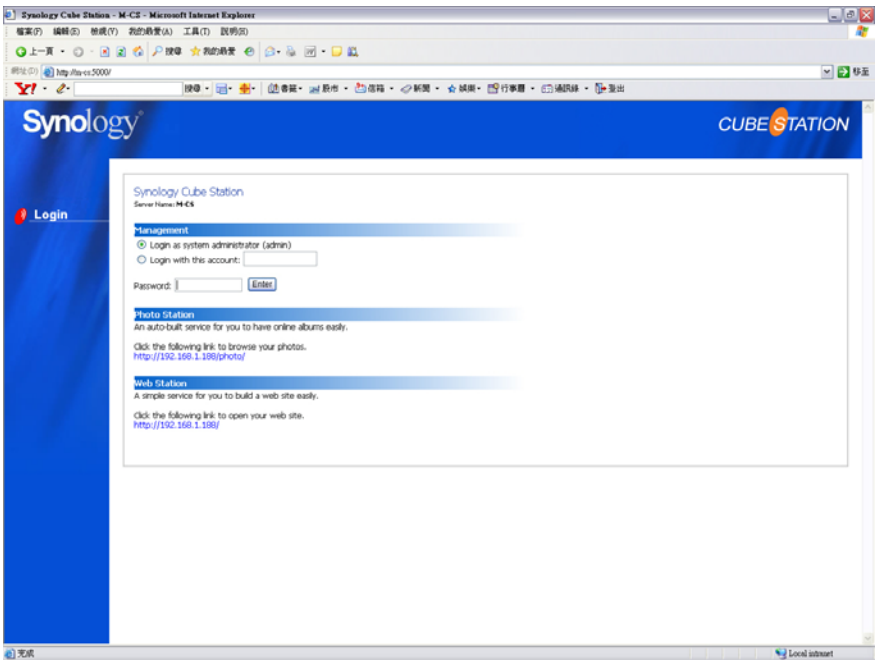
To ensure flawless management process, please use the following browsers:

Client	Browser
PC	IE 6.0 onward
Mac OS X 10.3.x	Safari 1.3 onward
Mac OS X 10.4.x	Safari 2.0 onward

Accessing Web Management UI Manually

1. Open web browser.

2. At the address line input “http://Synology_Server_Name:5000/", where “Synology_Server_Name” is the name you setup for Synology Server during the setup process.



3. Press “Enter” key on the keyboard.

4. Choose "login as system administrator (admin)".

5. Input password for admin.

6. Click “Enter” to access Web Management UI.

Managing Synology Server

You can start managing Synology Server in Web Management UI. Synology Server Web Management UI provides distinctive and straight forward design for easy management. You will find an online “Help” button on every page of the Web Management UI. Click on the “Help” button for further information whenever you encounter any problem.

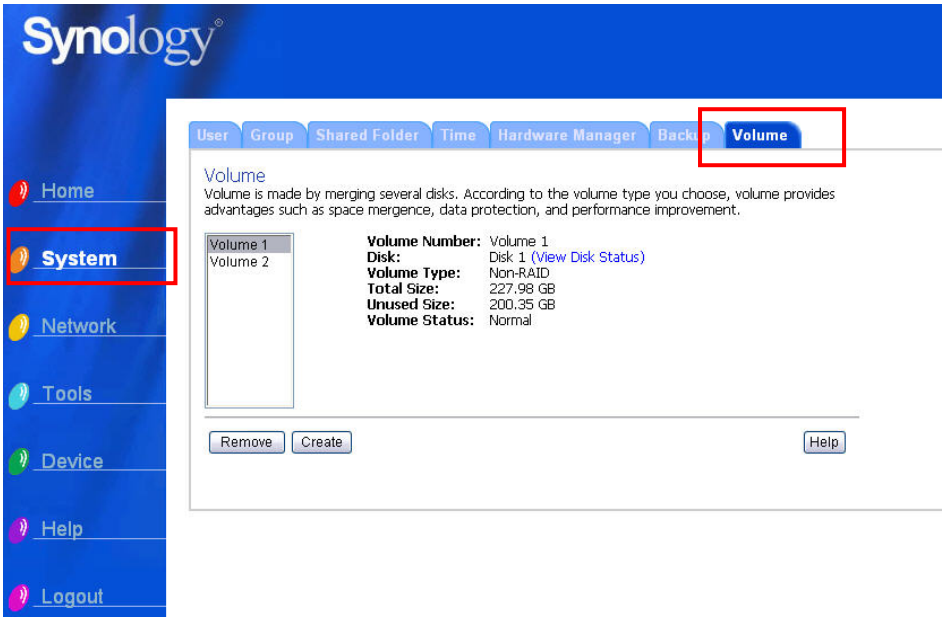
Managing Volume

You can combine hard disks on Synology Server to create different types of volumes, and find the data protection level of your need. The Synology Server provides you various volume types as follows:

Volume Type	Amount of composed hard disk	Functionality
Non-RAID	1	A Non-RAID volume must be created in one hard disk as an independent unit. In creating a Non-RAID volume, you can select only one hard disk at a time.
RAID 0	2~4	Combining multiple disks to build a volume, RAID 0 offers Striping, a process of dividing data into blocks and spreading the data blocks across several hard disks, but without safety measures.
RAID 1	2	One of the composed disks is used for backup purposes; the content of disk A is mirrored to disk B to assure data integrity. Therefore the actual available storage capacity equals to only the capacity of one hard disk.
RAID 5	3~4	This configuration includes a backup option. It uses parity mode to store redundant data on space equal to the size of one disk for later data recovery. Therefore the actual available storage capacity equals to the capacity of n-1 hard disks.

Managing Volume

You can create, remove, and repair volume. For the detailed description, please refer to Help on “System > Volume” page.



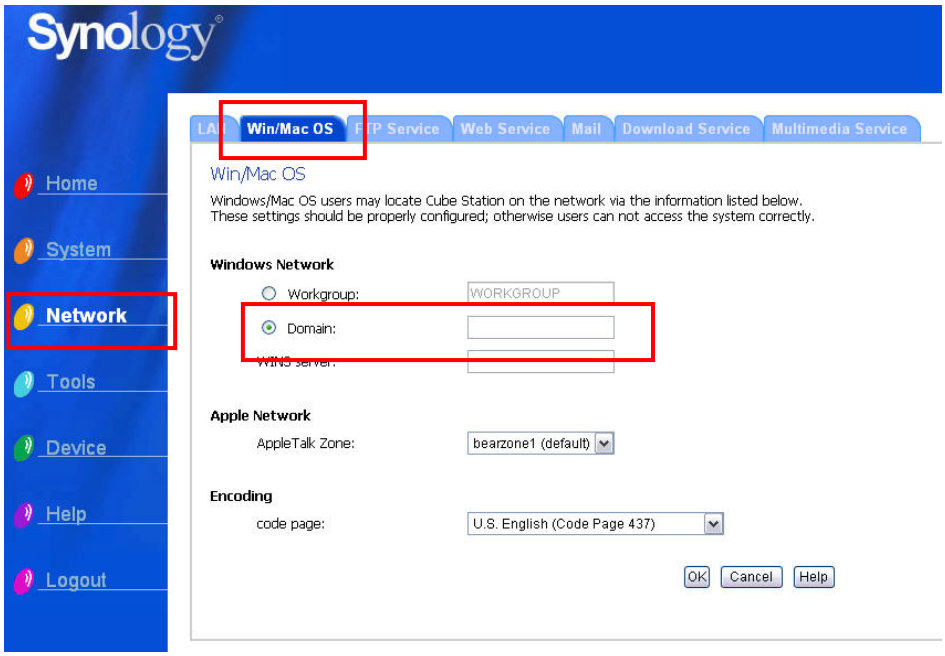
Repairing Volume by Hot Swapping

RS-406 provides hot swapping function. When you need to replace crashed disks in RS-406, you don't need to turn off the server. You can refer to the disk status on the management UI, or the front panel LED indicators to identify crashed disks, and directly pull out the hard disk tray to replace the crashed disk with a new one. Then follow the steps on management UI to repair the degraded volume right after replacing the hard disk.

Joining Windows Domain

You can add Synology Server to Windows domain and let the domain users access Synology Server. Synology Server supports both Active Directory Service (ADS) and NT4 domain. After being added to a Windows domain, the domain users only need to enter their domain account and password when trying to access the Synology Server. If the authentication succeeds, access will be granted.

For the detailed description, please refer to Help on "Network > Win/Mac OS" page.



Assigning Access Right for Domain Users

After adding Synology Server to a Windows domain, you can grant domain users' access rights to the shared folders on Synology server. Please refer to the "Accessing Synology Server Data > Setting Access Control" section for details.

Resetting Administrator Password

Pressing the "RESET" button and hold it for about 4 seconds before you heard a beep sound will restore IP, DNS, passwords for the "admin" account to default value, and reset the "guest" account to the "enabled" status.

Reinstalling Synology Server

If for any reason you have to reinstall the Synology Server, you can press the RESET button on the back panel twice, and the Synology Server will be reinstalled. The data saved on the Synology Server will not be erased during the reinstallation. However, for security's reason, we strongly recommend that you back up the data on the server.

To reinstall the server:

1. Press the "RESET" button and hold it for about 4 seconds. Release the button when the Synology Server emits a beep sound.
2. Within the next 10 seconds, press the "RESET" button and hold it for about 4 seconds again. Release the button when the Synology Server emits three beep sounds.
3. Run Synology Assistant, and set up the Synology Server again.

Accessing Synology Server Data

File sharing service is Synology Server's major function. Administrator can set up access rights for users either with Windows or Mac to access shared folders.

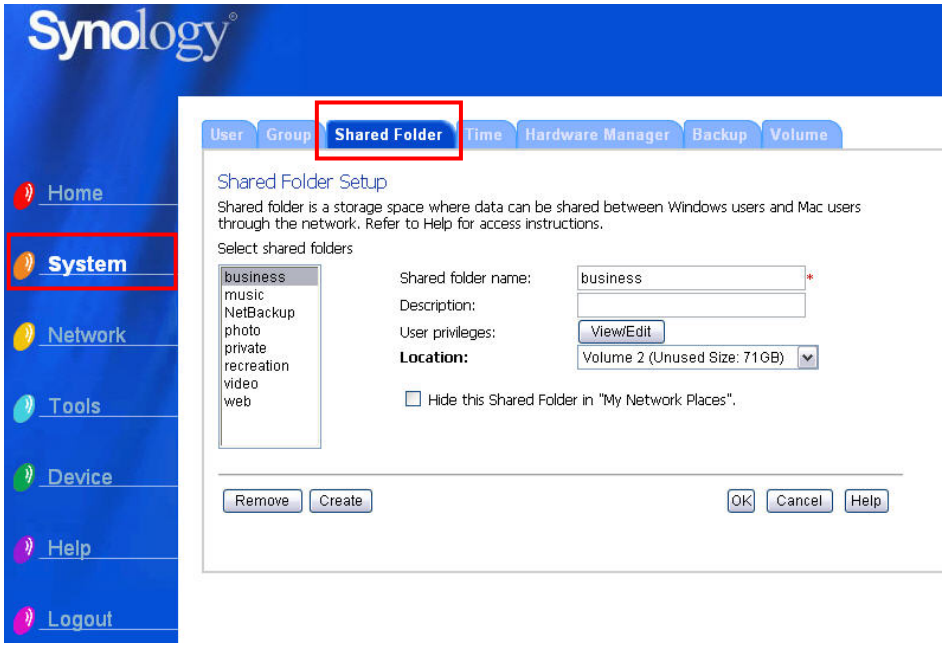
Shared Folders

System Built-in

Name	Description
web	The shared folder “web” is for storing web pages. When Web Station is enabled, users can browse the constructed website through browser. For detailed information, please refer to “Extra Features > Web Station” section.
photo	The shared folder “photo” is for storing image files. Files in “photo” shared folder can be browsed when Photo Station or Multimedia Service is enabled. For detailed information, please refer to descriptions of Photo Station and Multimedia Service.
music	Music files in “music” shared folder can be browsed through UPnP DMA when Multimedia Service is enabled. For detailed information, please refer to descriptions of Multimedia Service.
video	Video files in “video” shared folder can be browsed through UPnP DMA when Multimedia Service is enabled. For detailed information, please refer to the page “Network > Multimedia Service.”
NetBackup	The shared folder “NetBackup” is for saving backed up files using Network Backup. Please refer to the page “Tools > Network Backup.”
usbshare	After you connect external USB HDD to Synology Server’s USB port, system will automatically create a shared folder with the prefix “usbshare”. Refer to “Expanding HDD Capacity > External USB HDD” section for details.

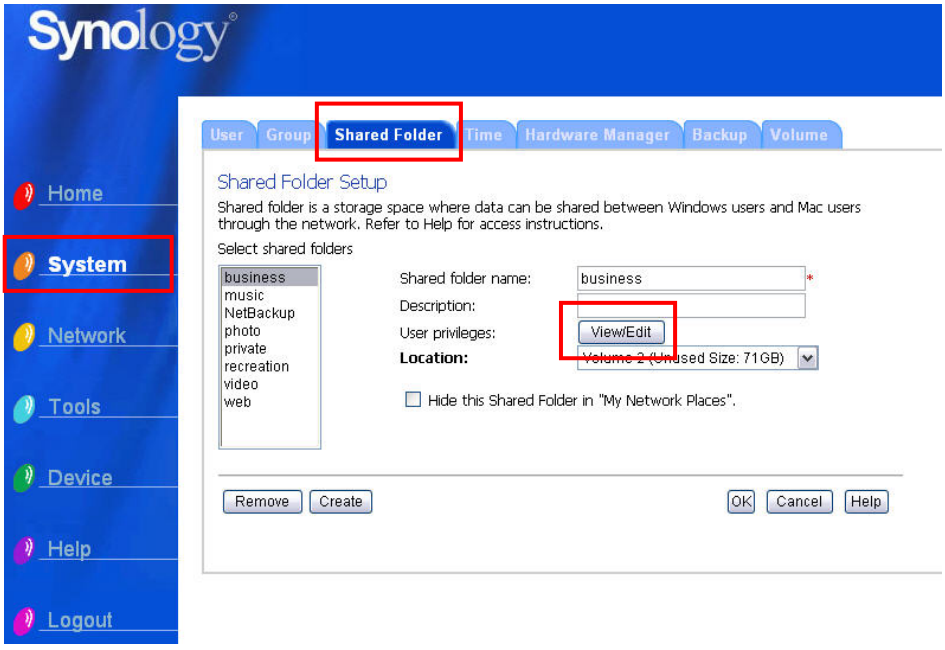
Administrator-Created

Apart from the above system built-in shared folders, Administrator can create shared folders on the page “System > Shared Folder” of the Web Management UI. Shared folders created by Administrator can be deleted or renamed at any time.

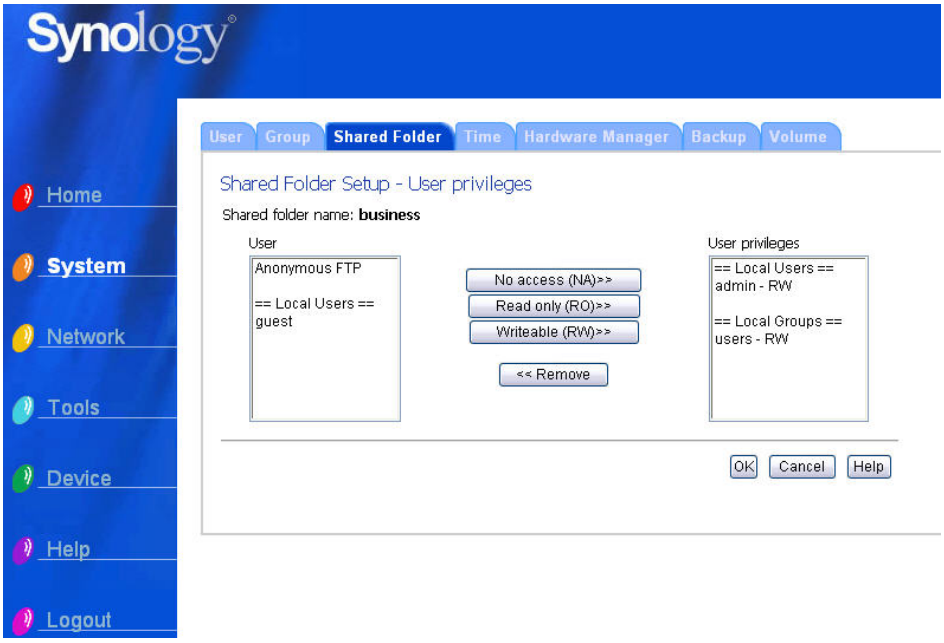


Setting Access Control

For security reasons, Administrator can go to the page “System > Shared Folder” of the Web Management UI and set access rights for different users by selecting the shared folder and clicking “View/Edit”.

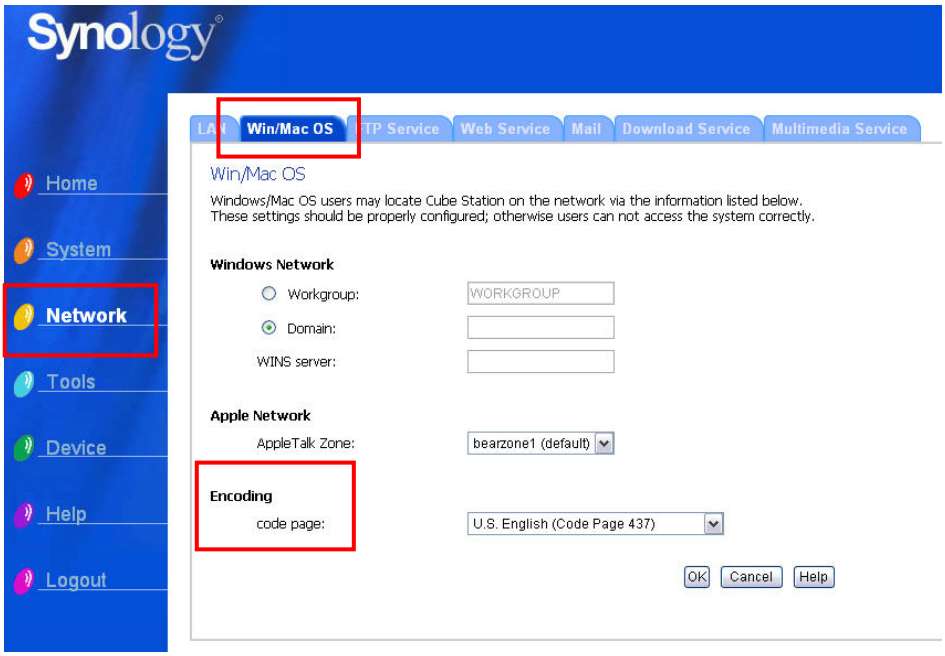


If Synology Server has been added to the Windows domain, you will see the domain users listed under the “User” list. You can also grant access right for the domain users on this page. After finishing the setting, click “OK”.



Setting Encoding

Synology Server uses Unicode to manage files. The benefit of using Unicode is to avoid file inaccessibility between users who use different languages. However, for users without Unicode support on their PC, Administrator can set the encoding method of the files to overcome the problem. Please go to the page “Network > Win/Mac OS” of the Web Management UI for the setting.



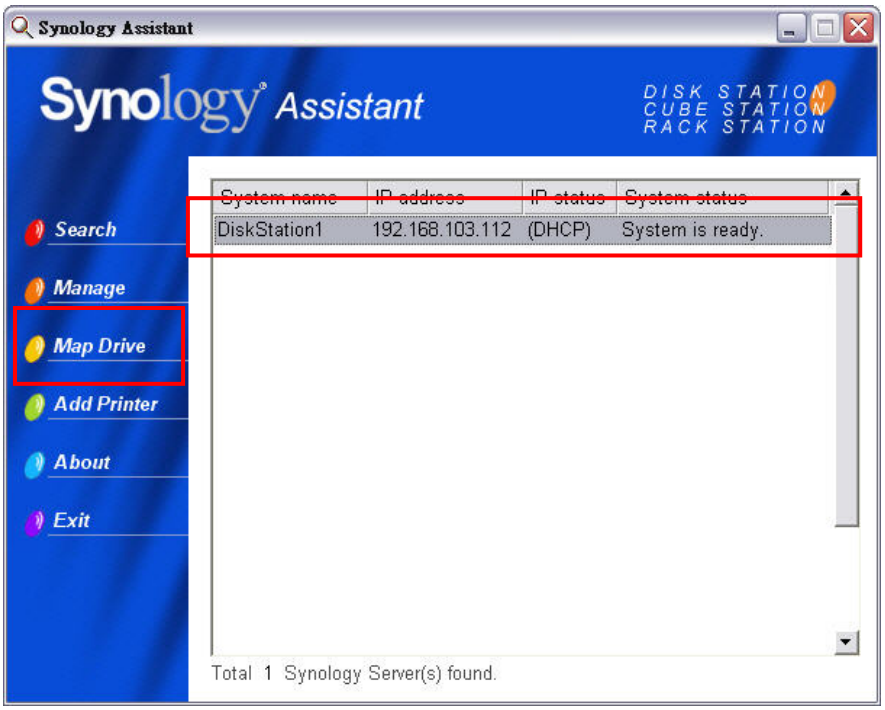
Accessing Shared Folders

Windows User

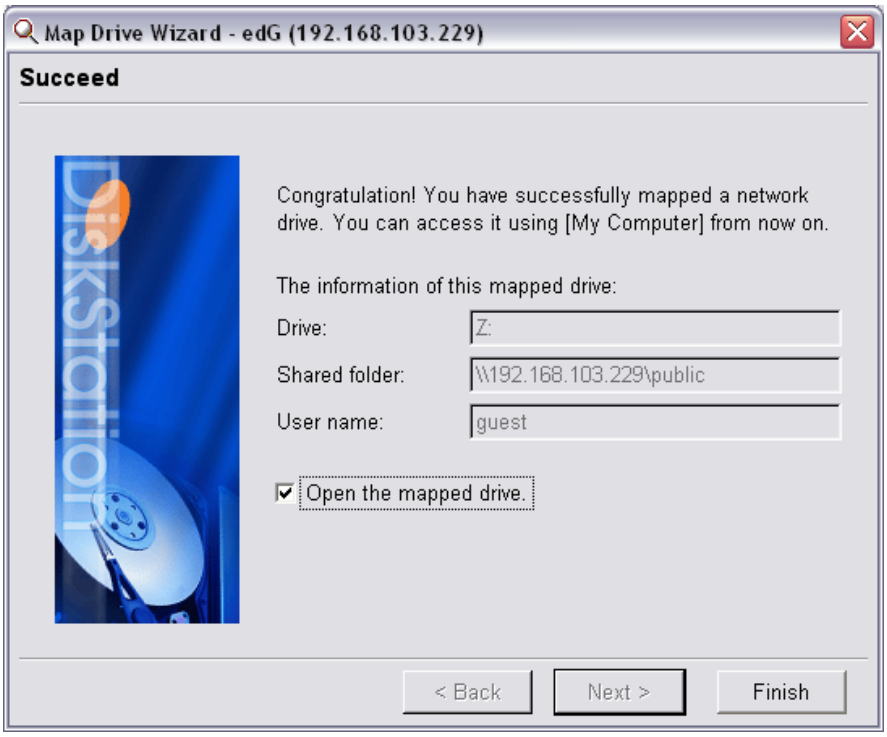
Windows users can access Synology Server's shared folders by using Setup Utility to map Network Drive

Synology Assistant, which is included in the Installation CD, not only helps Administrator manage Synology Server, but also provides users with the following steps to map Network Drive:

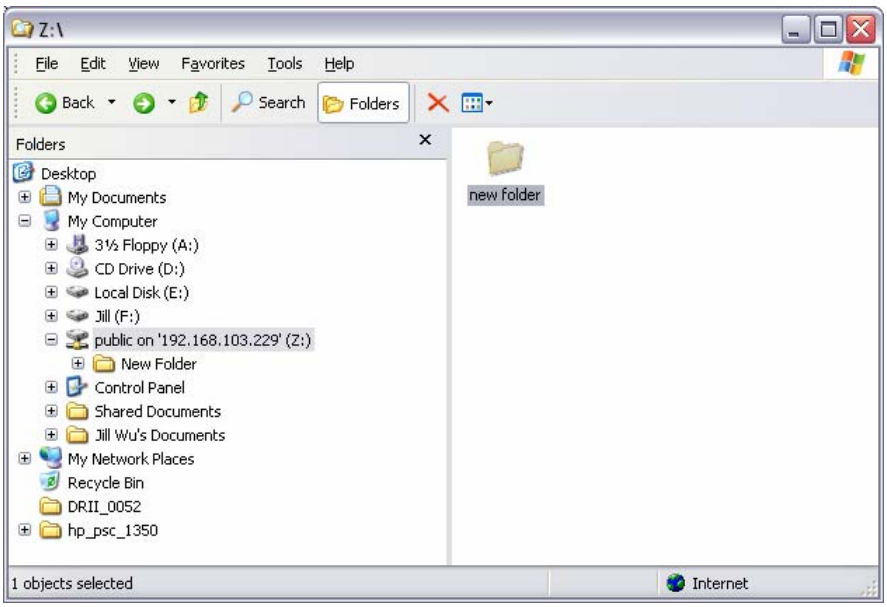
1. Run Synology Assistant.
2. Choose the server to map network drive.
3. Click on the "Map Drive" button on the left.



4. Follow the on-screen steps to finish the setup.

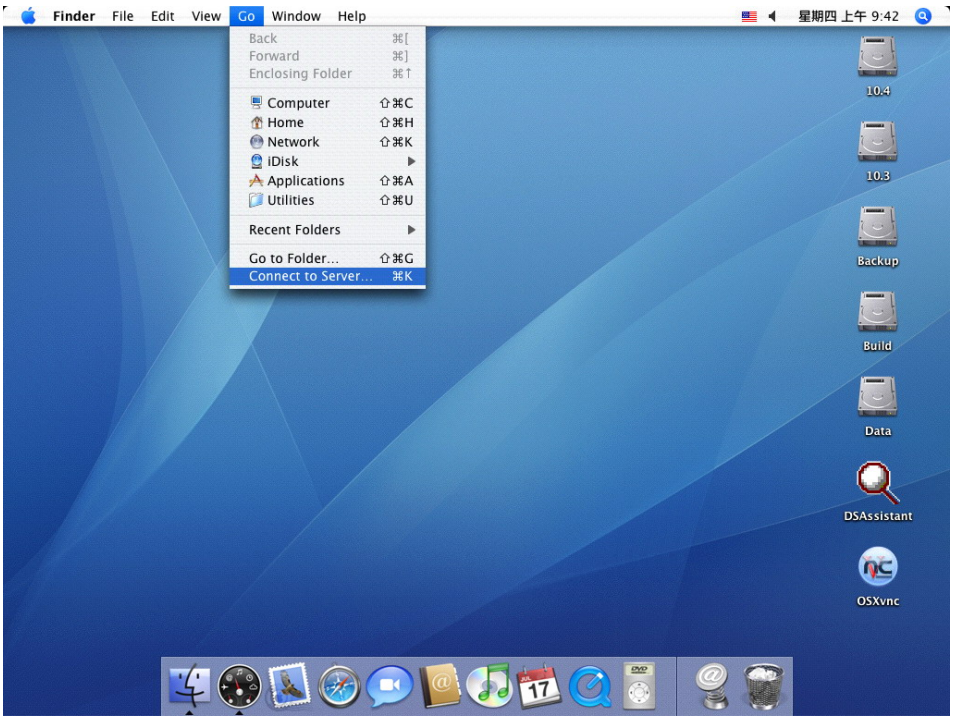


5. Upon completion, user can access the mapped shared folder in Windows Explorer.



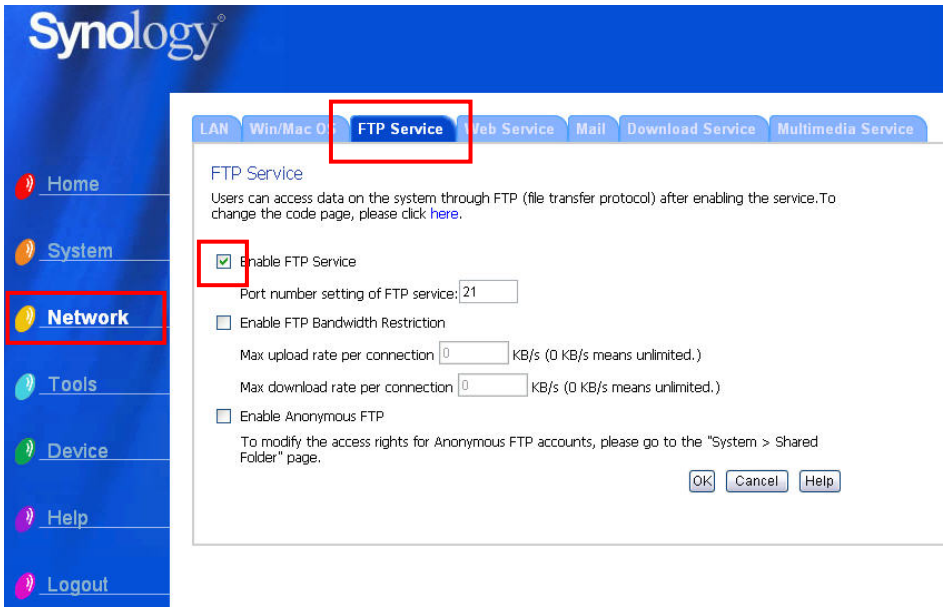
Mac User

Mac user can use ”Go > Connect to Server” to choose a Synology Server and access the shared folder on the server.



Through FTP

Synology server provides FTP service. Administrator can enable FTP service on the “Network > FTP Service” page of the Web Management UI. Windows users and Mac users can thus access data in Synology Server by FTP Protocol. To prevent data from being access while transferring, users can also use “FTP over SSL” or “FTP over TLS” to make the data more secure. For the detailed information of using FTP and its limitation, please refer to Help on “Network > FTP Service” page.



Please Note:

1. Administrator has the option to adjust FTP Bandwidth or enable Anonymous login.

2. FTP Service does not support Unicode. Before enabling FTP Service, please go to “Network > Win/Mac OS” page and setup codepage according to user’s client PC.

Server Backup and PC Backup Solutions

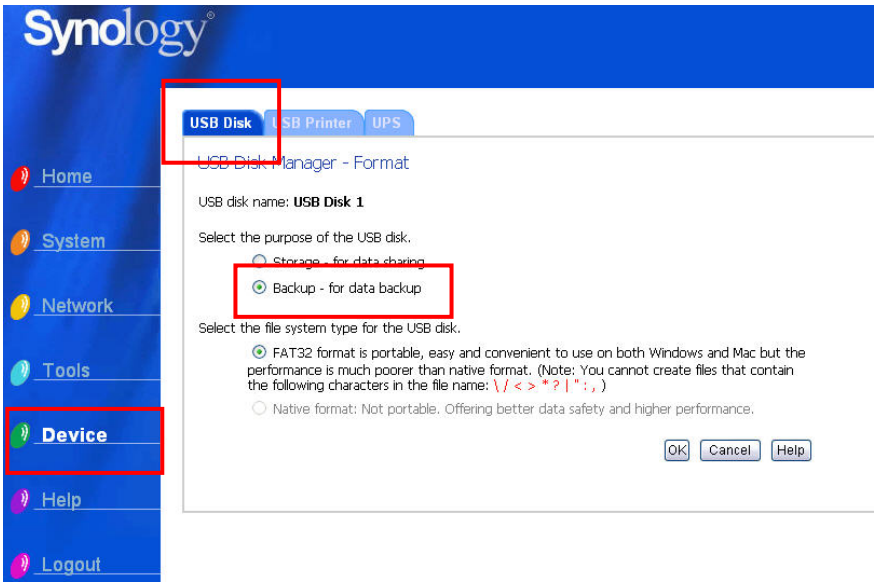
Synology Server provides complete backup solutions:

1. By using “Local Backup”, Administrator can back up Synology Server’s data to external USB HDD.
2. By using “Network Backup”, Administrator can backup Synology Server’s data to another Synology Server.
3. By installing Synology Data Replicator II software on the client PC, Windows users can backup data from PC to Synology Server.
4. Administrator can also backup Synology Server’s User, Group, and Shared folders (see details below).

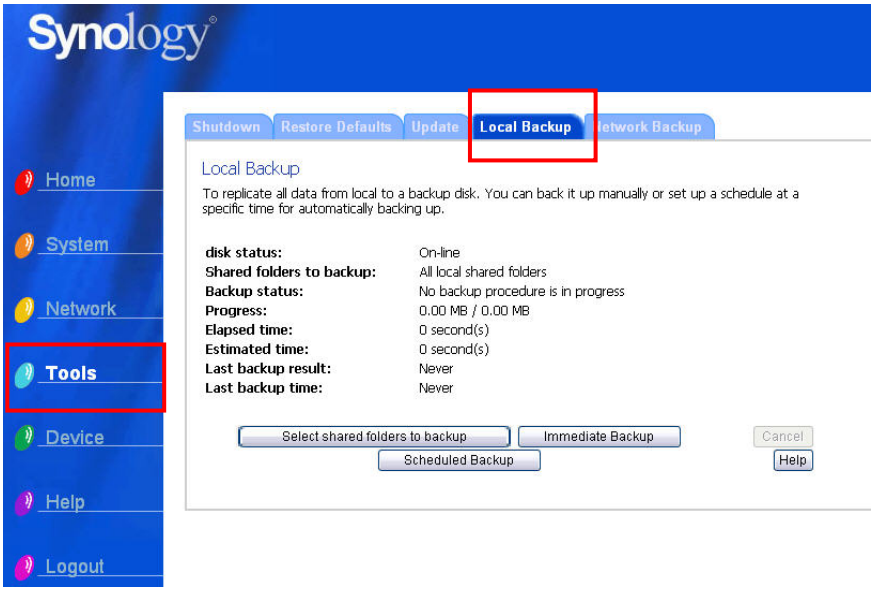
Local Backup

Please follow the below steps to perform Local Backup:

1. Connect an external USB HDD to the corresponding port on Synology Server.
2. Go to the page “Device > USB Disk” of the Web Management UI, and format the HDD as “backup purpose”.

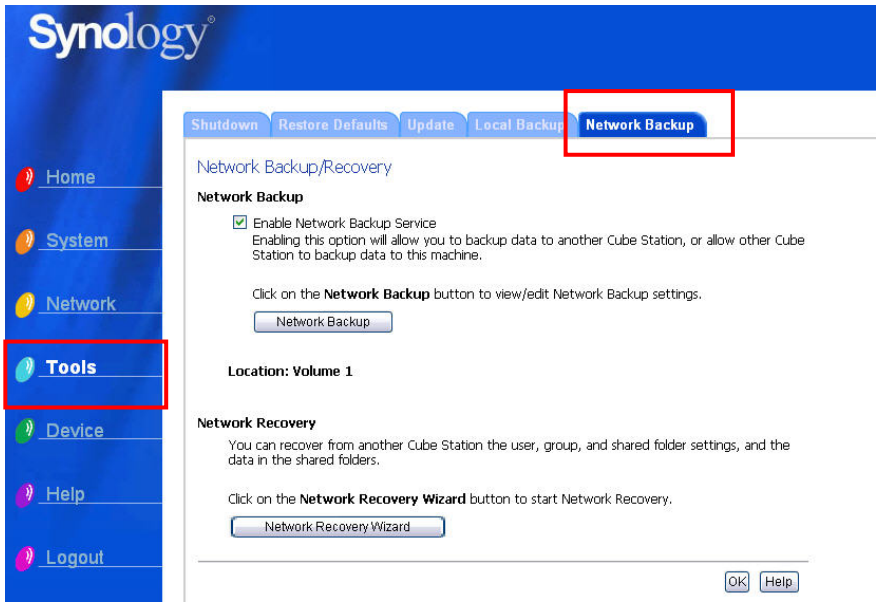


3. Go to the page “Tools > Local Backup” to set up your backup task.



Network Backup

Network Backup allows Administrator to back up Synology Server's data to another Synology Server through network. Please ensure Network Backup option is enabled on both Target and Client Server before performing the task. Go to "Tools > Network Backup" page for detail information.



Backup Personal Data

Windows users can install "Synology Data Replicator II" backup software which can be found on the installation CD. They can backup client PC data to Synology Server to maintain a good copy of data whenever needed.

Using Synology Data Replicator II, users can:

1. Monitor selected folders on client PC and perform real-time backup when any modification to the file is made.
2. Adjust backup versions and restore points.
3. Restore backup date on Synology Server to client PC at user's preference.

Before starting

Before using Synology Data Replicator II, please ensure:

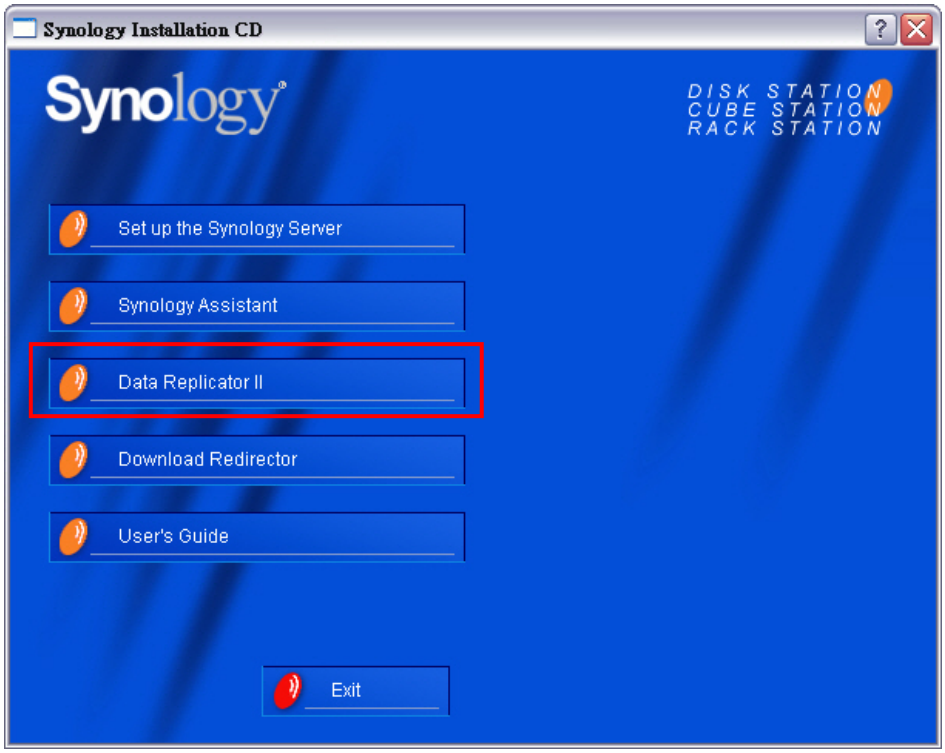
1. Client PC and Synology Server uses the same encoding for backup to perform adequately.
2. Synology Data Replicator II is the next generation of Synology Data Replicator. It can only restore backup data on Synology Server generated by itself. If users have backed up data on Synology Server using Synology Data Replicator, we recommend restoring data on Synology Server to PC first before using Synology Data Replicator II.

Minimum System Requirement

1. Free HDD Space: 5MB
2. Operating System: Windows 98/ME/2000/XP
3. Best Screen Resolution: 1024*768 and above
4. Microsoft Networking over TCP/IP enabled and has network connection with Synology Server.

Installing Synology Data Replicator II

Insert Installation CD into Windows user CD/DVD-Rom drive. Click on "Synology Data Replicator II", and follow on-screen instructions.



Using Synology Data Replicator II

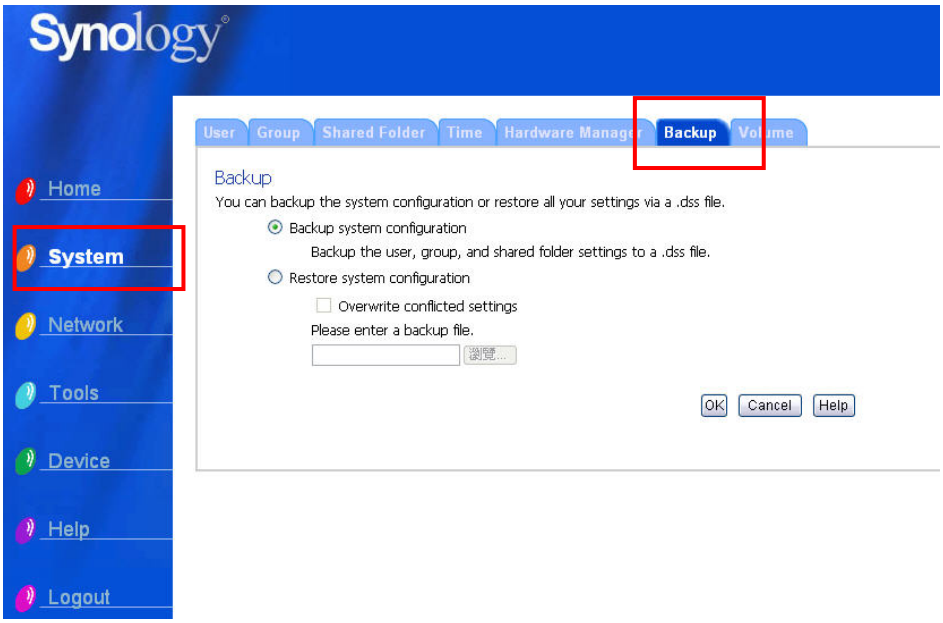
After installation, double click on the software icon to execute the program. Click on “Help” for detail description.

Backing up Synology Server Settings

There are two options for you to backup Synology Server’s “User”, “Group”, “Shared Folder” settings for easy maintenance and restoration.

Synology Server to PC Client

Go to the page “System > Backup” of the Web Management UI to backup settings from Synology Server to PC Client.

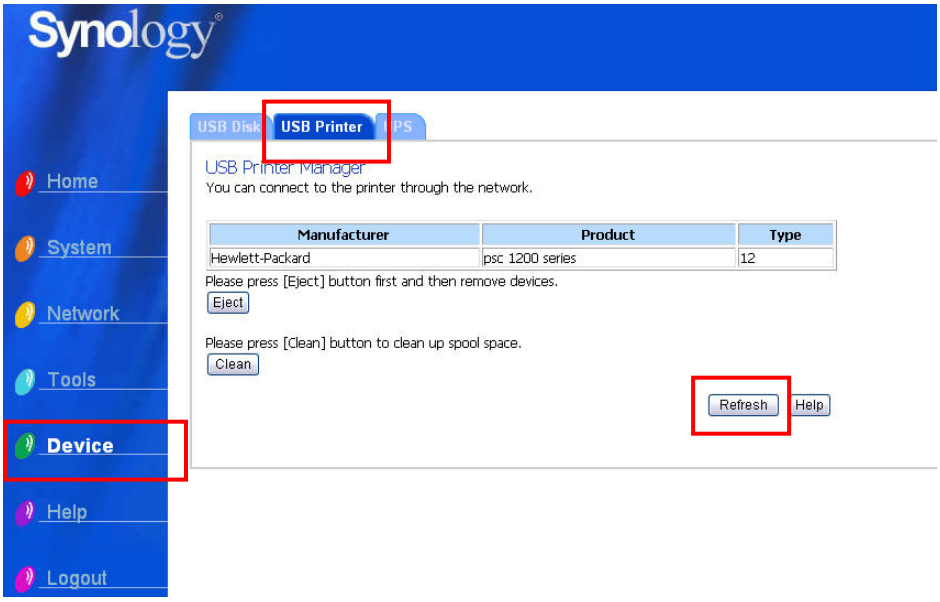


Synology Server to another Synology Server

The data backed up to another Synology Server using “Network Backup” automatically includes the “User”, “Group”, “Shared Folder” settings. When you recover the data, you can choose if you want to recover these settings.

Sharing USB Printer

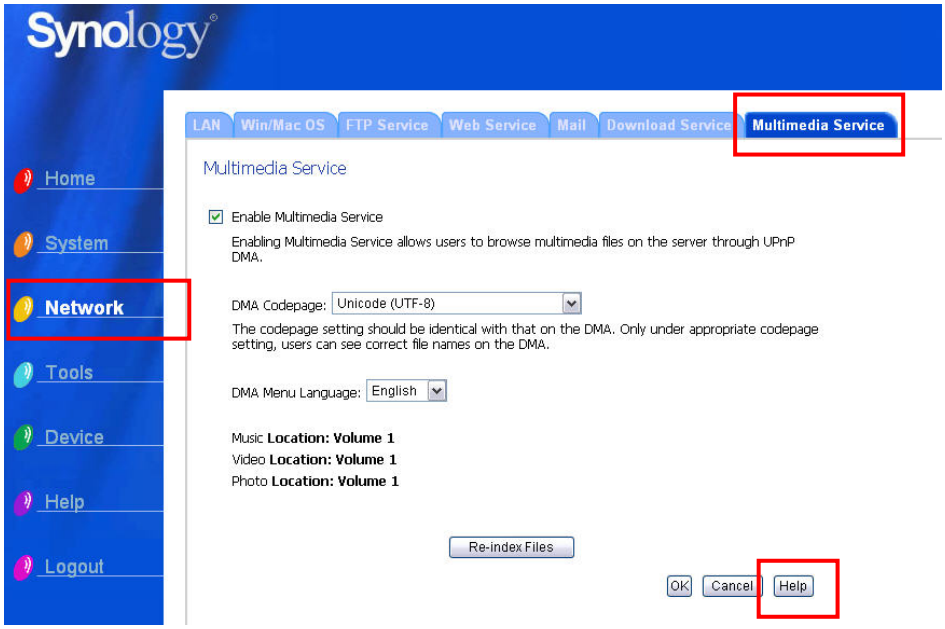
Synology Server supports Windows 98 and above users, and Mac OS 9 and above users to share USB Printer. For the detailed settings on different platforms, please refer to the page “Device > USB Printer” of the Web Management UI.



Extra Features

Multimedia Service

When “Multimedia Service” is enabled, users who have UPnP DMA (Digital Media Adapter) can browse multimedia files on Synology server. Please go to “Network > Multimedia Service” page for further setup.



Download Station

Synology server can download files from Internet through BitTorrent, FTP, and HTTP. PC users and Mac users can install Download Redirector to add download tasks and manage the download queue.

Before start adding download tasks, you should enable Download Station on Synology Server and install Download Redirector on PC or Mac.

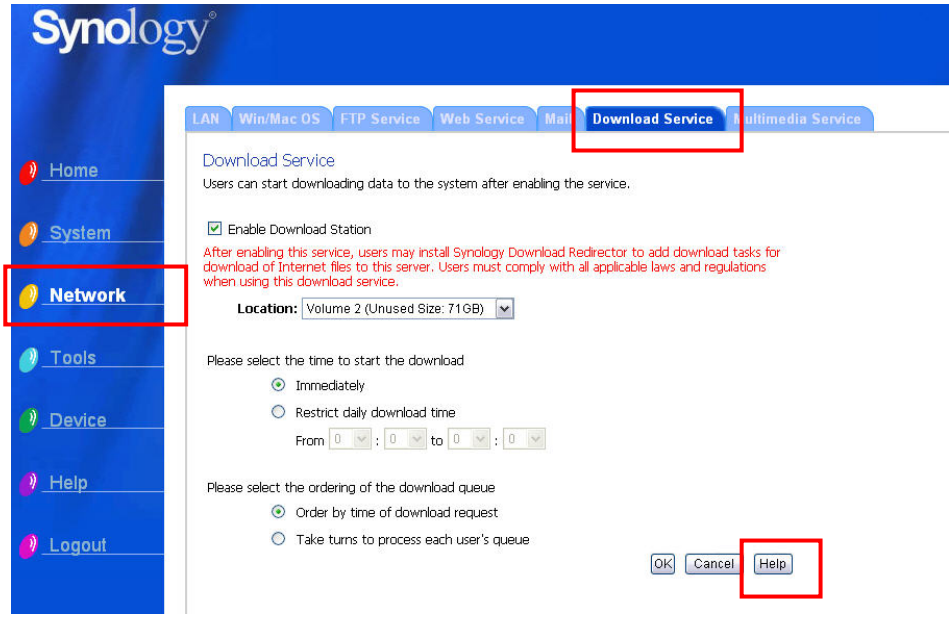
Enabling Download Station

Go to the “Network > Download Service” page.

Installing Download Redirector

Insert Installation CD into the CD/DVD-Rom drive. Click on “Download Redirector”, and follow on-screen instructions.

For the detailed description of Download Redirector, please refer to Help on Download Redirector program window.



Web Station

Personal or corporate website can be easily setup using “Web Station.” By integrating with PHP and MySQL, users can also setup online shop. PHP support is turned on by default, MySQL requires manually enabling.

Enabling Web Station and MySQL

Go to the “Network > Web Service” page.

Web Station’s detail description

Please click on “Here” link under “Enable Web Station”.

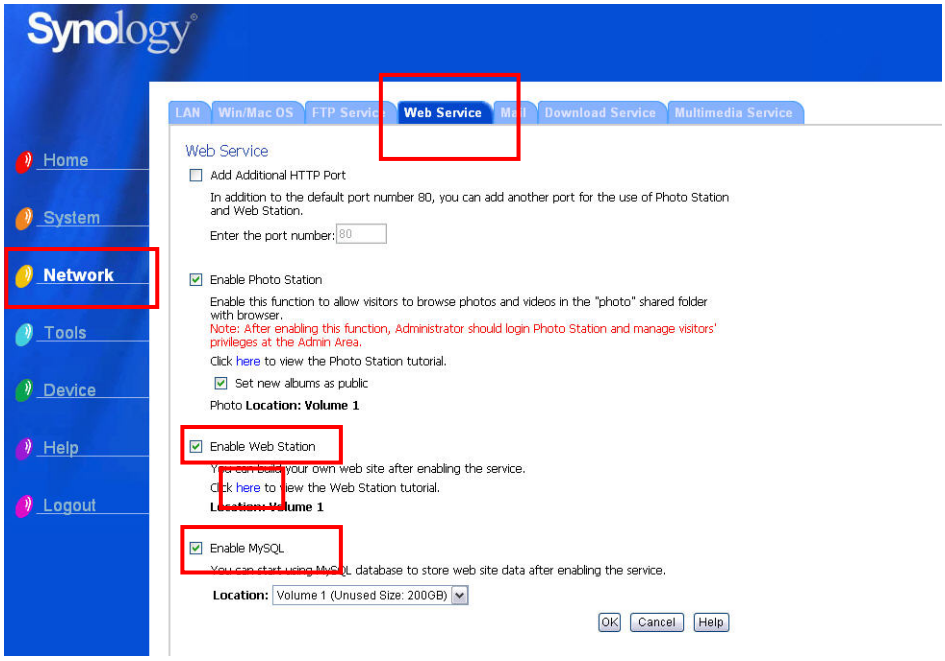


Photo Station

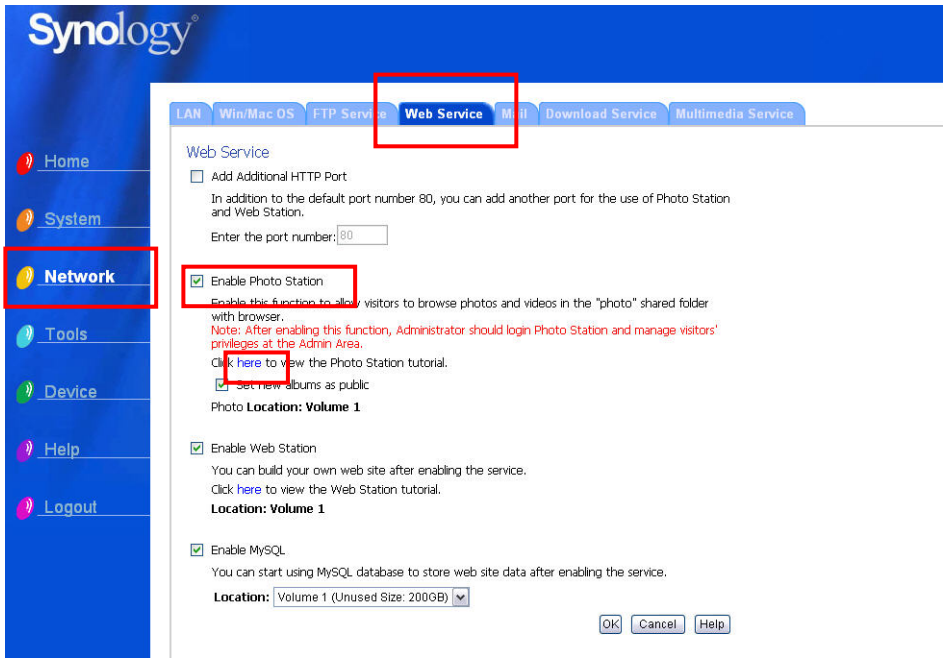
"Photo Station" provides easy and fast method to share your photos online. Access right control can be setup to effectively manage each album.

Enabling Photo Station

Go to the "Network > Web Service" page.

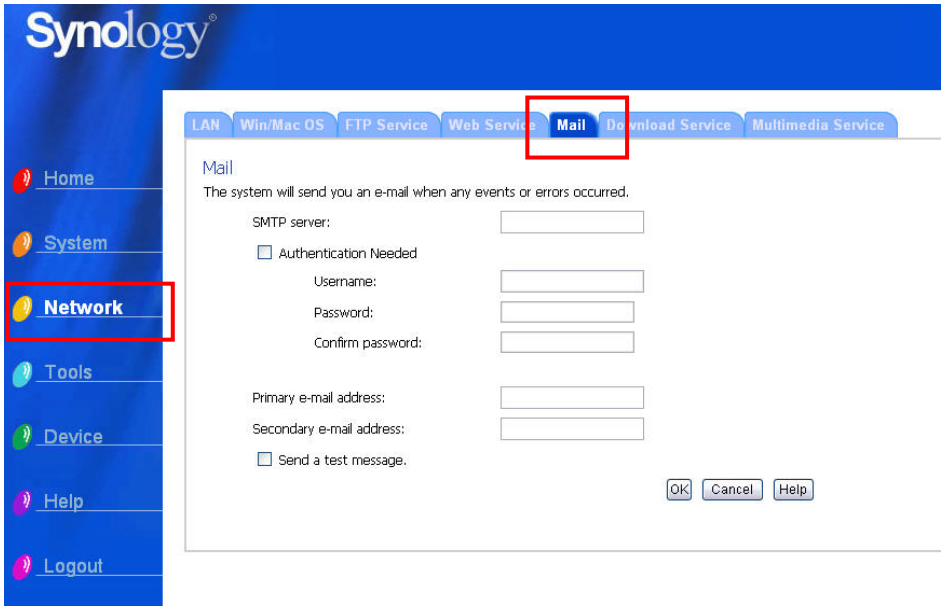
Photo Station's detail description

Please click on "Here" link under "Enable Photo Station".



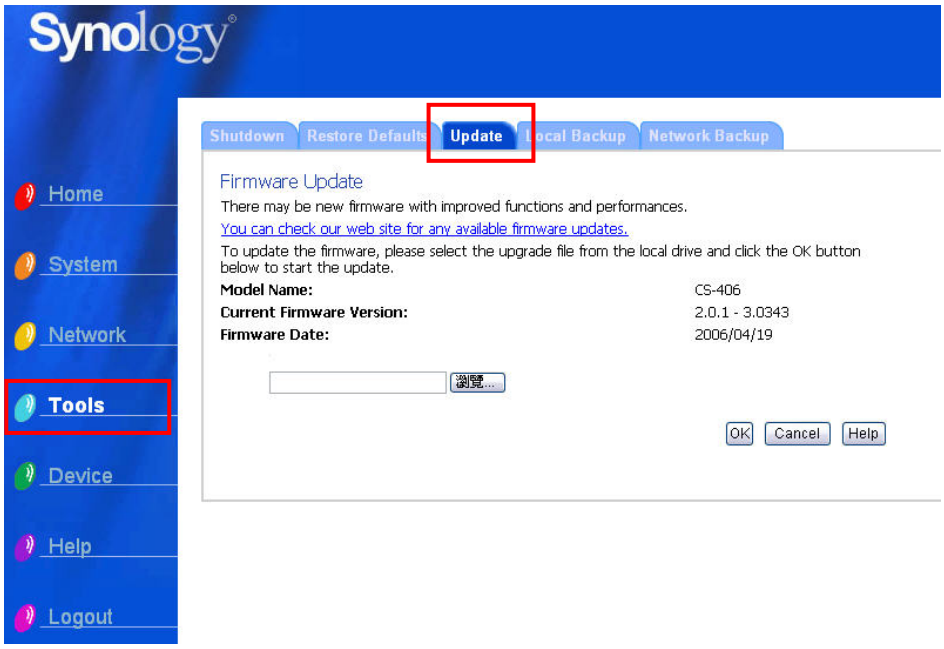
Mail Notification

Administrator can enter email address on the page "Network > Mail". Synology Server will send email to the address whenever an important event occurs to notify Administrator.



Firmware Update

To keep your Synology Server up to date, Administrator can go to “Tools > Update” page to upgrade firmware.



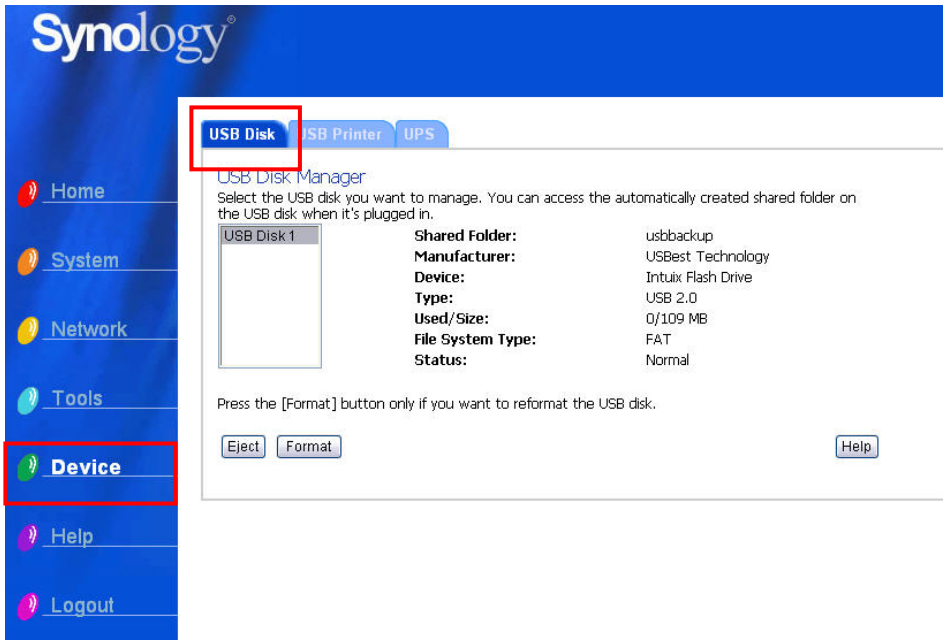
Expanding HDD Capacity

Administrator can expand HDD capacity by connecting external HDD, or replacing a larger capacity internal HDD.

External USB HDD

When connecting an external USB HDD to Synology Server's USB port, "usbshare1" shared folder will be created automatically. Upon disconnecting external USB HDD, the shared folder will be removed. For more than 1 external USB HDD is connected, "usbshare1", "usbshare2" will be created accordingly.

To Eject or Format external USB HDD, go to the page "Device > USB Disk" of the Web Management UI.



Troubleshooting

For any questions about managing your Synology Server, please refer to the “Help” button at every page of the Web Management UI. For any questions other than that, please visit Synology Inc. website (www.synology.com) for further assistant.

Appendix

Recommended Peripherals

Recommended SATA HDD

Brand	Model	Capacity
Seagate	ST3120026AS	120GB
Seagate	ST3300831AS	300GB
Seagate	ST3500641AS	500GB
Seagate	ST3400832AS	400GB
Hitachi	HDS725050KLA360	500GB
Hitachi	HDS722525VLSA80	250GB
Maxtor	6H400F0	400GB
Maxtor	6H500F0	500GB
Maxtor	6V250F0	250GB
Maxtor	6V300F0	300GB
Maxtor	7H500R0	500GB
Maxtor	7V250F0	250GB
Maxtor	7V300F0	300GB
Maxtor	6V200E0	200GB
Maxtor	6L250S0	250GB
Samsung	SP2504C	250GB
Western Digital	WD1200JD	120GB
Western Digital	WD1600JD	160GB
Western Digital	WD2500JD	250GB
Western Digital	WD5000KS	500GB

Recommended USB Printer

(Unless specified, this table is based on Windows platform)

Brand	Model	Remark
EPSON	CC-600PX	Printer function only.
	E-100	Printer function only.
	LP-1500C	

Brand	Model	Remark
	LP-2500	
	LP-6100	
	LP-8800C	
	LP-9100	
	LP-9100PS3	
	PM-3700C	
	PM-4000PX	
	PM-760C	
	PM-970C	
	PM-D750	Printer function only.
	PM-G700	
	PM-G800	
	PX-G900	
	PX-V500	
	PX-V600	
hp	DESKJET5160	
	DESKJET5650	
	DESKJET5850	
	LaserJet 2300n	Also supports Mac
	OFFICEJET5510	
	OFFICEJET6150	
	PSC1350	
	PSC2450	
	PSC2550	
	Photosmart 1100c	Also supports Mac
Canon	i320	
	PIXMA iP 1500	
	PIXMA iP 3000	
Brother	HL-2070	
	HL-5150D	
	QL-500	
	DCP-110C	No scanner support
	MFC-8840D	No scanner/ fax support

Recommended UPS

Brand	Model	Remark
APC	Back-UPS Series	USB interface

Recommended NTP Server

The main purpose of Network Time Protocol (NTP) is for synchronizing clocks of computer system over data network. We have provided a few recommended NTP servers. For more information about NTP Server, please visit http://www.eecis.udel.edu/~mills/ntp/servers.html

Below are few recommended NTP server:

1. time.apple.com
2. time.asia.apple.com
3. time.euro.apple.com
4. time.nist.gov
5. time.windows.com

For more information, please refer to:
http://ntp.isc.org/bin/view/Servers/WebHome